

Scaling Solar



AN INNOVATION OF
WORLD BANK GROUP



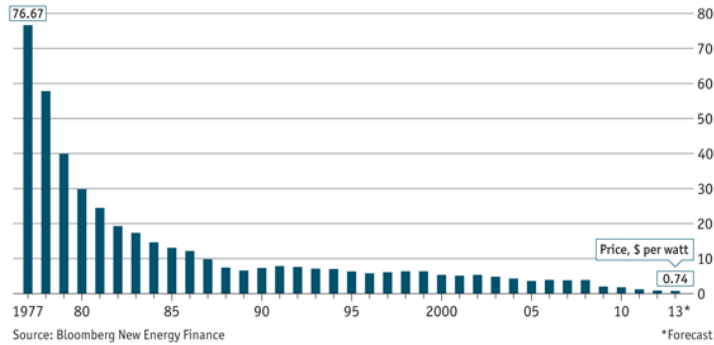
Scaling Solar:

A World Bank Group solution to rapidly expand private investment in utility-scale solar PV

The Solar opportunity is there to be taken advantage of

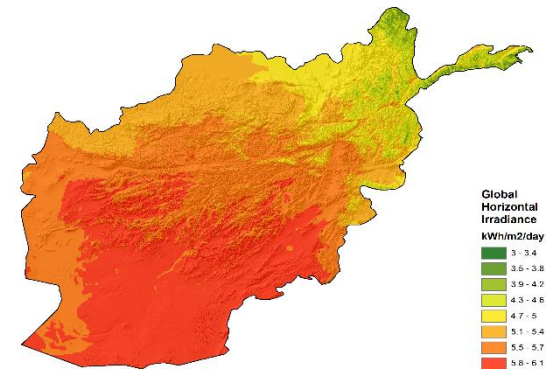
The economics of utility-scale solar PV power have reached a tipping point...

Price of crystalline silicon PV cells, \$/W



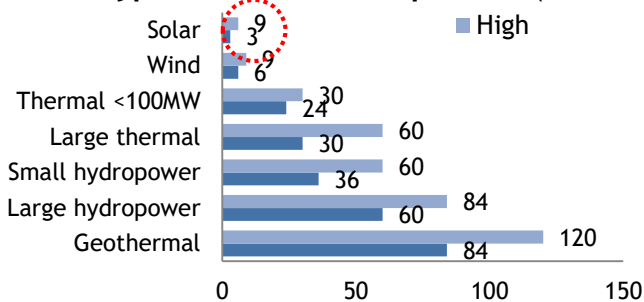
...and Afghanistan Global Horizontal Irradiance (GHI) is above 5 kWh/m²

Horizontal irradiation in Afghanistan



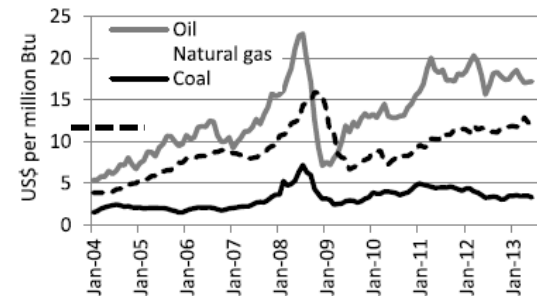
Solar power can be built in 3-9 months vs. 3-10 years for thermal, hydro & geothermal...

Typical construction periods (months)



....and many countries need to diversify away from a dependency on HFO and fossil fuels

Evolution of oil, gas and coal prices since 2004



But investment in solar PV is slow...

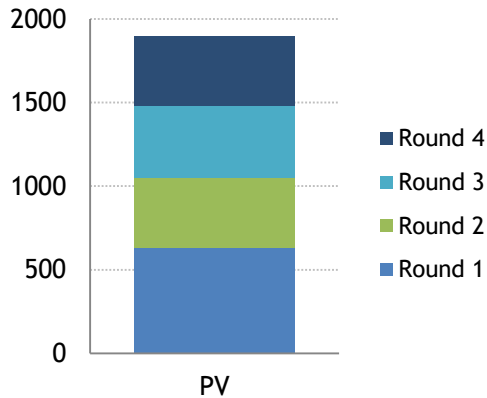
- ✘ Lack of market scale
- ✘ Lack of competition
- ✘ High transaction costs
- ✘ High perceived risk and cost of capital
- ✘ Limited institutional capacity

Scale, standardization & competition are needed

Case Study: Dramatic tariff reductions have been achieved in South Africa

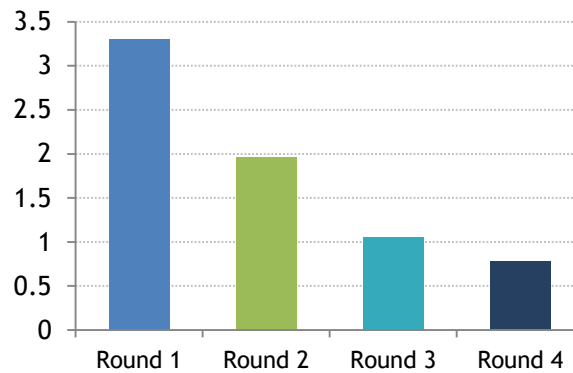


Capacity allocated per round (MW)



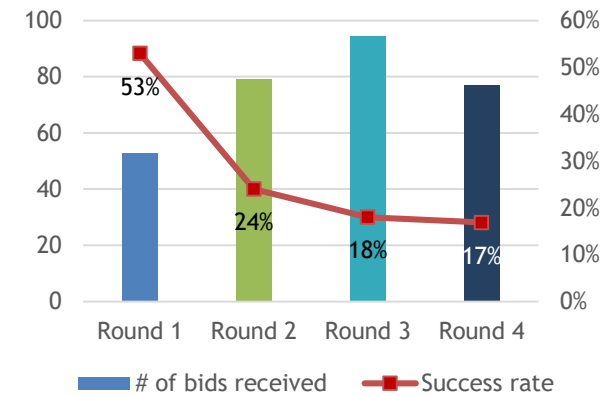
✓ +1,900 MW of solar PV power

Tariffs per round (ZAR/kWh)



✓ Tariff drop of -68% for PV projects over the 3 rounds

Number of received bids and success rate (includes wind)



✓ Surge in investor interest and increasing selectivity in bidders afforded

The WBG Solution: A “One-Stop-Shop” offering



Scaling Solar is a “one-stop-shop” for Governments to rapidly mobilize competitive privately funded grid connected solar projects within 2 years of engaging our team.

Scaling Solar brings together several World Bank Group services under a single engagement:

- ✓ *Advice to assess the right size and location for power plants in grid.*
- ✓ *Simple and rapid tendering to ensure strong competition from committed industry players.*
- ✓ *Standardized, balanced project documents to eliminate drafting and negotiation delays.*
- ✓ *Competitive financing and insurance attached to tender and available to all bidders.*
- ✓ *Risk management and credit enhancement products to lower financing costs and deliver lower tariffs.*

What's new about this?

1

Delivery Speed & Efficiency

- ✓ Templates (RFQ, RFP, PPA, GSA) support rapid & low cost tender preparation
- ✓ Balanced docs and stapled financing avoid negotiation

2

Optimization & Risk Mgmt

- ✓ Site selection & development minimize uncertainty and optimize for grid
- ✓ Stapled PRI and off-taker credit enhancement lower risks & so tariffs

3

Economies of Scale

- ✓ Standardization across multiple countries creates large regional market
- ✓ Delivers benefits of economies of scale

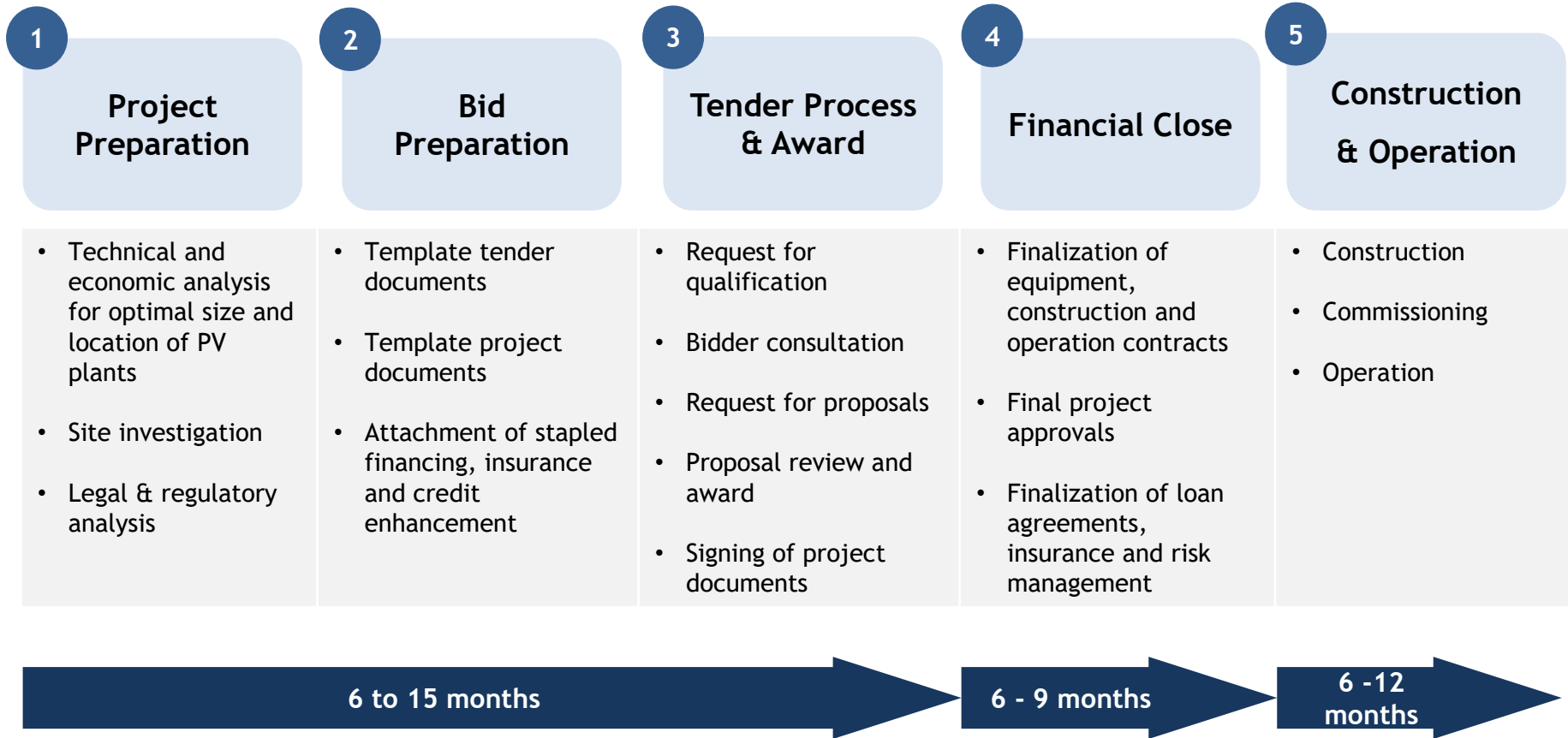
Developers that have already bid on Scaling Solar tenders



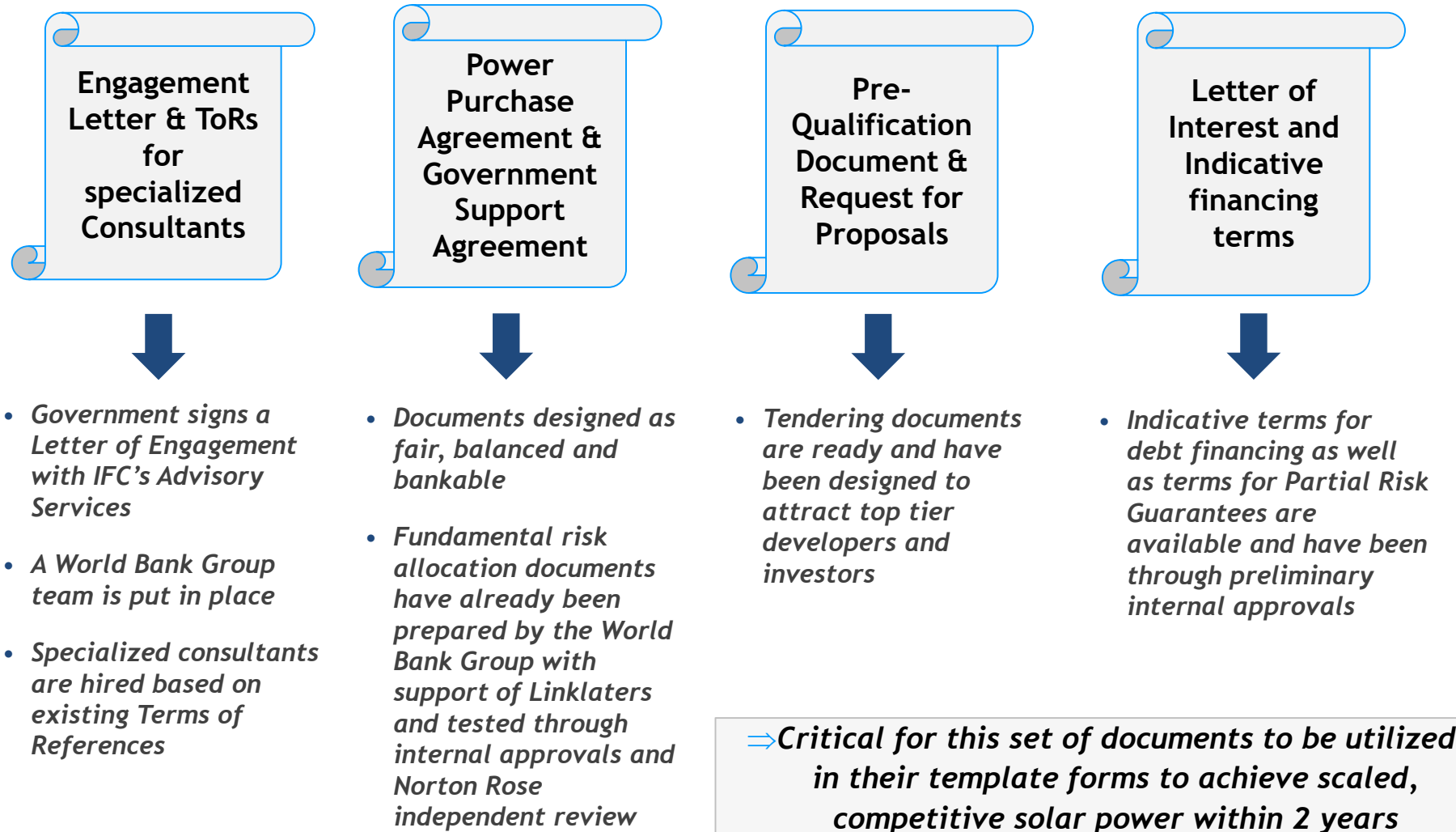
How will it work? Scaling Solar's 5 Steps



- Several WBG instruments brought together under a single product offering.
- Client governments would engage in a single mandate to access the “one-stop-shop”.



The tendering process: What are the “standardized documents”?



What are the benefits?

1. *For Governments:*

- ✓ Speed
- ✓ Customized process
- ✓ Certainty
- ✓ Competitive fixed-rate tariffs

2. *For Project Developers:*

- ✓ Market creation
- ✓ Reduced development time
- ✓ Level playing field

3. *For Donors:*

- ✓ Reach
- ✓ Leverage
- ✓ Impact

Afghanistan - Status Update

- Financial Advisory Services Agreement Signed on September 12, 2018
- Strengthening government capacity to develop a land bank of suitable PV solar sites based on consistent criteria reflecting good international practice
 - Learning by doing - leveraging site selection of pilot 40MW transaction
 - IFC/WB joint effort to assist in site selection - WB GIS tool with embedded filter criteria to screen prospective sites in Kabul area/ identify potential sites in Herat; IFC support for on-site visits/ criteria checklist to validate GIS assessments jointly with stakeholders
 - Going forward - request by Arazi to assist in codifying site parameters in form of Guidelines/ Directive for Arazi regional teams
 - Two sites visited by the Consultant and Gov't Team.
- Improving coordination in implementation of projects - MoF leadership in convening Technical Committee
- Developing bankable risk allocation - comparative review of international practice and successful pilots to date in Afghanistan
- Development of outreach strategy to engage international investors/ improved competition

Questions or Interest? Please contact us

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